

In the Abstract:

Combustion failures of an internal combustion engine are controlled in closed loop fashion by sampling an engine r.p.m. to obtain a speed signal. The speed signal is subjected to a Hartley-Transformation to obtain angular frequencies or engine orders which are further processed to identify the cylinder which had a combustion failure and thereby reduced an actual engine power output compared to a rated power output. A power output correcting signal is produced and supplied to the engine. The system for performing these steps includes at least a speed signal sampler, a frequency analyzer to perform the Hartley-Transformation, a cylinder identifier or classifier and a controller which supplies the closed loop control signal to the engine.